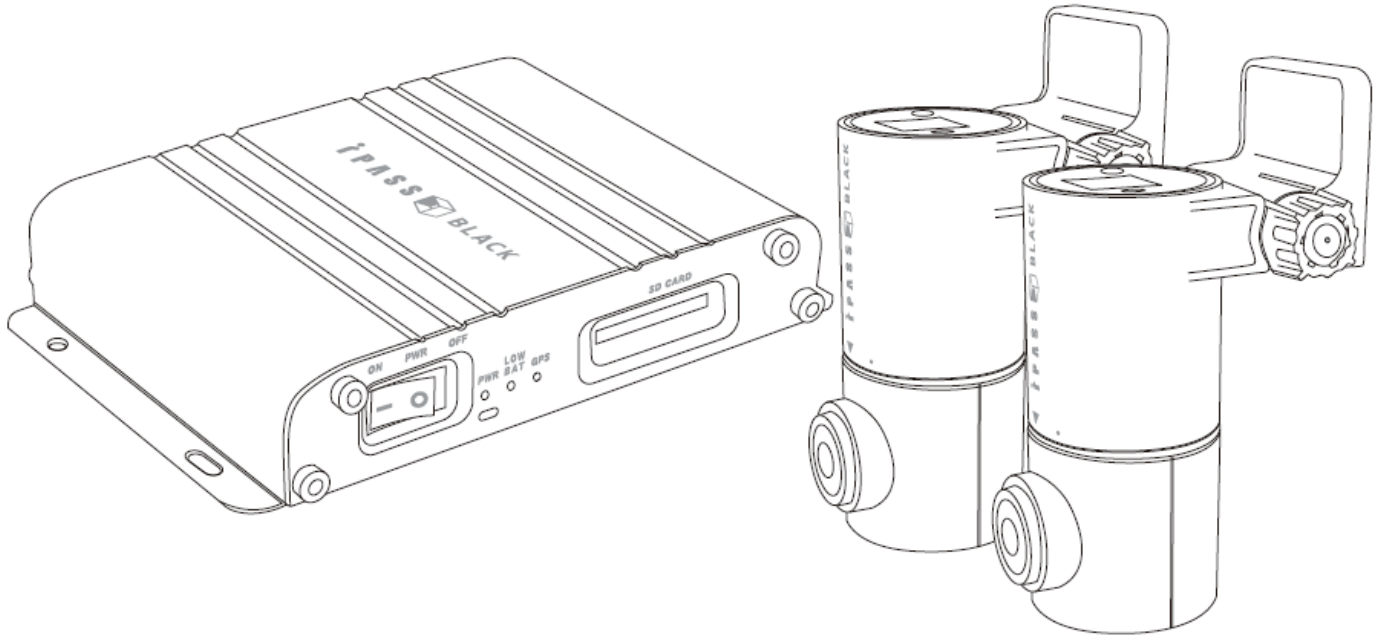
User Manual ITB-500HD User Manual



Real 2CH HD Vehicle Driving Recorder

<Warranty & Scope of Liability of Video Recording>

- This product is a supplementary device to increase driver awareness for safe driving and assist in accident prevention, as well as reference about the circumstances of an accident. This product and it's recorded data can not be used to legally judge any 3rd party's liability of an accident.

- If the level of impact is so light even in the case of an accident, the impact g-sensor may not recognize it and an event file for recording may not be triggered. In this case, tap the ITB500 cameras to activate an event file for saving.

- The manufacturer shall not be liable for any damages due to the loss of data or any other malfunction occurred by the use of this product.

- Please note: This product is not guaranteed to work for all vehicles. There is a potential for interference with modern vehicles using wireless alarm systems and smart keys. It is important to test the device in your vehicle before carrying out the installation to ensure the product is compatible with your vehicle.

Table of contents

- Main features
- Safety instruction – Warning
- Safety instruction - Caution
- Attention to SD memory card
- Attention to GPS
- Components
- Name of the product details
- Installation
- Operation of the product
- Installation of the PC player
- How to play the video
- Function keys in the PC player
- File management in the PC player
- How to change the user setting
- How to manage the recorded files
- How to format the SD memory card
- Product specifications

Main features

iPASS BLACK

1. ITB-500HD records a front and rear view simultaneously with vivid HD resolution. It records video and audio continuously using H.264 high efficiency data compression method in the screen resolution 1280 x 720px.

2. ITB-500HD contains an Uninterrupted-Power Cable (UPC) function for using the product as a surveillance camera when the vehicle engine is stopped (parking mode). It has battery protection circuit also in order to prevent the vehicle battery from discharging.

3. If the external GPS receiver (optional) is connected to the device, the ITB500HD records the driving speed and display's it in the PC Player. It also records the driver's location and displays this data using a google maps window in the PC player.

4. When parking mode is activated, normal mode recording is ceased to avoid long-term recording of unnecessary video while parking. The device will record for 60 seconds after an event only when the devices g-sensor senses shock on the vehicle or the motion of objects.

5. The front & rear camera spins up to 360 degrees to record in various directions.

6. A built-in super capacitor for instant power back-up will complete the last recorded files safely when the vehicle's electricity power is shut off due to a significant incident ie. Car accident.

7. If the driver is faced with a possible collision and reacts, increased acceleration or sudden braking is detected by the built-in impact sensor, the recorded data is saved as event file which is flagged as E in the file list.

Main features

8. The devices generates 3 file types of data captured by the built-in 3 axis G-force sensor is displayed in the ITB PC Player software.

9. When the memory capacity of the SD card has been filled, the oldest video data on the SD card will be overwritten to allow new footage to be recorded.

10. In car audio is also recorded along with video data that can be played back in the PC player. In order to protect the privacy of the driver, the audio recording function can disabled by pressing the format button in the front camera.

11. Inserting the SD card into a PC computer via the provided USB adapter allows the data to be stored and viewed on the computer using the iPASS BLACK PC software.

12. The recorded video will be saved as an AVI file format. Video files can then be played on any multimedia player (additional codecs may be required for MAC).

13. Connecting the video out cable (optional), enables the user to watch real-time video footage via an in car navigation or monitor screen.

14. The user can format the SD memory card instantly by pressing the mic on/off button (format button) on the camera and holding for 5 seconds.

Safety Instructions - Warning

1. Do not try to operate the product when driving.

2. Do not disassemble, repair or modify the product. This will void the warranty and will result in the manufacturer not being held responsible for any issues or damage caused to the product.

3. Do not clean the product with water or volatile solvents. This may cause an electrical fault which will damage the product and create a potential fire hazard.

4. Use only genuine parts or accessories supplied and recommended by the manufacturer. Using non-genuine parts can damage the product and void your warranty.

5. Ensure you connect the product to a stable power supply (DC12/24V).

6. If the product is connected to the battery of the vehicle when the vehicle is not being used for a long time, please disconnect the product from the power supply to avoid draining your battery.

7. Do not store the product inside a vehicle for a long period of time especially in the summer or winter season. This may cause the damage or faults to the product.

Safety Instructions- Caution !

iPASS BLACK

1. Place the product in an unobstructed place to optimize viewing performance. Mounting the cameras behind tinting or obstacles will effect the recording vision quality.

2. Please clean the lens of camera regularly to ensure recorded footage is clear.

3. If you need to re-install or change the location of the product, please recheck the angle of the camera lens to ensure proper recording and confirm its recording status on playback.

4. Routinely check the position and angle of the camera lens to ensure the camera has a good line of sight. These checks should be carried out after travelling on rough terrain.

5. Recording quality is affected by lighting conditions and may be poor or distorted due to the sudden level of brightness change. For example; right after passing through a tunnel.

6. If the product is badly damaged due to large impact such as a car accident or disconnected from power source, it may cease operating. Video footage on the SD card will be saved.

Attention to SD memory card

iPASS BLACK

1. The SD memory card has a limited lifetime and may be unable to store new data after a certain period of time. In order to extend its lifetime, we recommend you format the SD memory card periodically (once per week). If the SD card fails please purchase a new SD Memory card and replace the old one.

2. Do not remove the power source or pull out the SD Memory card from the product when it is operating and recording. This may cause a loss of data and damage to the SD Memory card.

3. Do not disassemble , repair or modify the SD Memory card. This may cause a loss of data and damage to the SD Memory card.

4. Please store the SD Memory card in the hard plastic case provided if you need to transport it.

5. Please use the recommended SD Memory cards supplied by the manufacturer. If not, this may cause a loss of data or compatibility issues.

6. Please back up any important data on a separate storage source such as your computer hard drive or USB drive in case the SD memory card fails.

Attention to GPS (optional for ITB500HD)

iPASS BLACK

1. Please note GPS connectivity can take up to 10 minutes to connect depending on the gps receiver's view of the sky and position of satellites. The processing time for a gps connection will vary depending on certain factors such as weather conditions, the vehicles surroundings and the position of satellites.

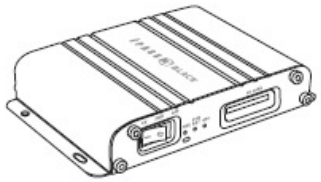
2. Please note the overall functioning of the product such as video recording is not effected by a poor or unstable GPS connection.

3. Please make sure the GPS receiver is mounted behind a clear, non tinted part of the interior windshield. Avoid installing the GPS receiver behind dark tinting or metal parts of the dash board.

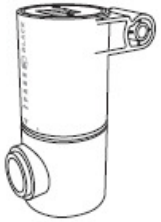
4. If the camera lens is tilted too far backwards for in-vehicle video recording, the GPS reception may become poor (this applies to inbuilt GPS camera devices). This is because the built-in GPS receiver faces down to the ground and may be unable to communicate with GPS satellites. Please revert back the direction of camera lens to the front after in-vehicle recording.

5. Do not use this product with other products that generate electromagnetic waves. This may interfere with the GPS signal and reduce the performance of GPS reception.

Components



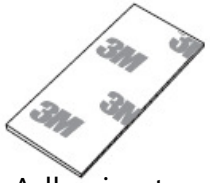
Main unit



Cameras (2)

Mounting Cradle

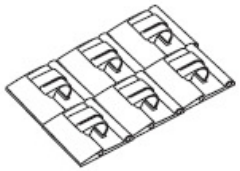
Adhesive tape for cameras (spare, 2EA)



Adhesive tape for main unit (spare, 2EA)

SD memory card

SD card reader



Cable holder

User manual

Power cable

Camera Connecting Cable (2EA, 5M)

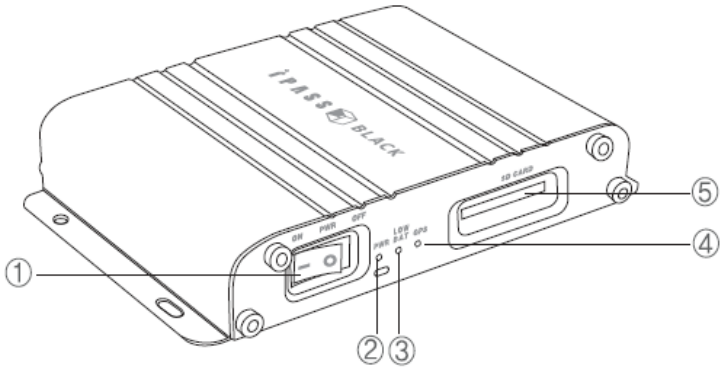
Camera Connecting Cable (7M, Option)

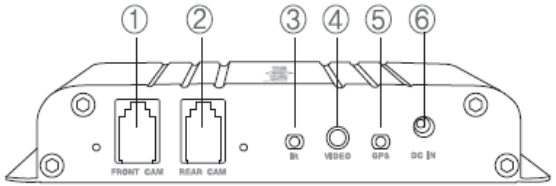
External GPS (Option)

Video Out Cable (Option)

Cigar jack type Power cable(option)

Name of the product details



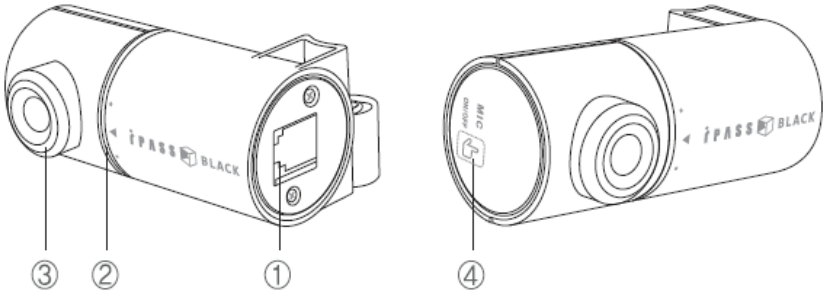


Main unit (front)

1) Power on/off switch
2) Power-on LED Indicator
3) Low battery warning LED indicator
4) GPS status indicator
5) SD memory card slot

Main unit (back)

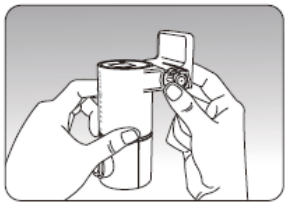
1) Front camera port
2) Rear camera port
3) IR receiver port
4) AV cable port
5) External GPS port
6) Power cable input port

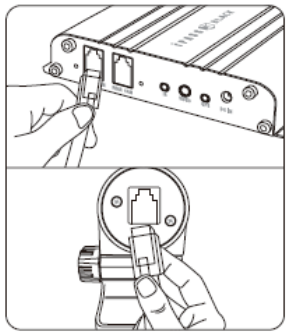


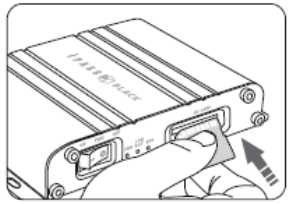
Camera

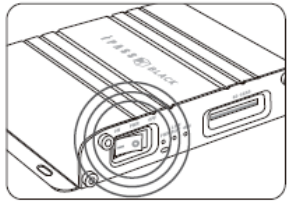
1) Cable input port
2) LED indicator
3) Camera Lens
4) Mic On off (short key)
   Self format button (long key)

Installation









1. Assemble the camera with mounting cradle and fix it to the window shield. (Clean the window shield before fixing it)

2. Put the connecting cable into the camera port of main unit and connect it with each of the cameras.

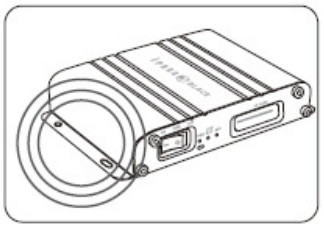
3. Please install two cameras (Front and Rear) in the same way as above procedure.

4. Put the power cable into the power port and connect it with car battery fuse box. The product requires constant 12V DC power supply.

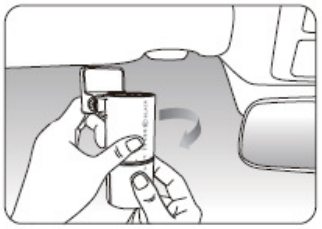
5. Insert the SD memory card into the slot of main unit.

6. Check all connections and power on the unit for operation to run a TEST to make the sure system is functioning properly. After the test is complete you can continue to mount the main control unit and arrange cameras (see next page).

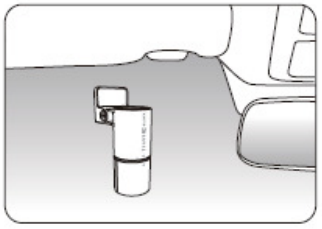
Installation



7. Fix the main unit to a suitable, accessible location with some ventilation. Use the provided 3M tape or mount with screws so the install is secure.



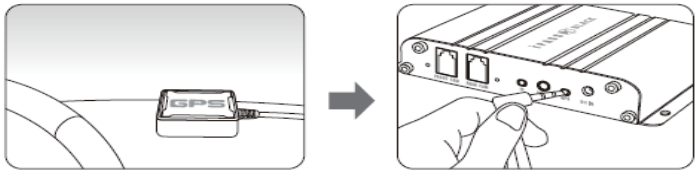
8. Align the direct of the camera lens to the front referring to the camera direction alignment guide (arrow make printed on each camera.



9. Connect the GPS receiver (optional) to the correct port on the main control and mount receiver so it has a clear view of the sky (do not mount behind dark tint strips or close to metal.

10. Arrange all cables with cable holders to provide a neat installation. Check all connections at the main control unit to ensure all the correct ports have been used.

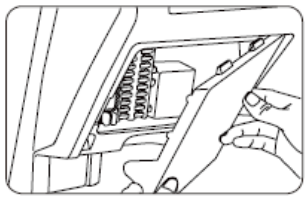
11. Power on the unit for normal operation. Installation is now complete.



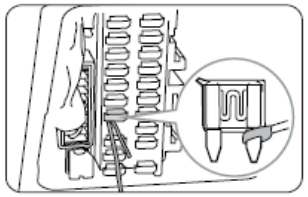
When the external GPS receiver is installed, please make sure the GPS receiver face up to the sky and fully exposed through the windshield. Then, put the GPS receiver cable into the GPS port of main unit.

How to Connect Power

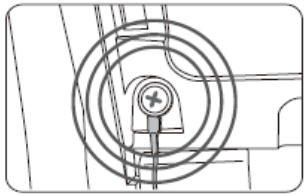
This product contains an Uninterrupted-Power Cable (UPC) function for using the product as a surveillance camera when the vehicle engine is stopped. However, when you connect UPC, it is highly recommended to use our authentic UPC which has battery protection circuit in order to prevent the vehicle battery from discharging.



1.Open fuse box inside of the vehicle and, by using electric testing device such as a multimeter, find the fuse which the power (constant 12V) is supplied to even when the engine is off.(For example, emergency flasher lights, interior lights and door lights etc.)

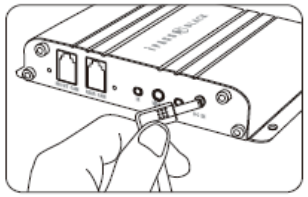


2. Pull out the fuse and connect one leg of the fuse with "+" end (red wire) of the power cable and insert back into original position



3. Connect "-" end (black wire) of UPC to the any metal part of the vehicle that is grounded (check for 12V with your multimeter from "+" to "-". If there is no screw attached to the vehicle, you must to screw one on the vehicle, make sure the connection is secure and not loose.

* Note: The unit will not work if the black wire is not properly connected to "-" ground on the car metal chassis.

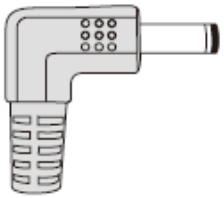
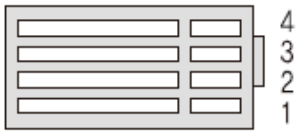


4. Make sure the product is working properly after the vehicle engine is started and then arrange and hide the cables for neat installation.

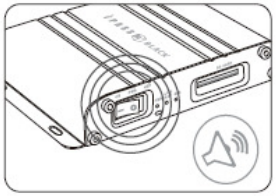
* Note: When UPC is connected, please check your SD on a regular basis. (Extend the life of your SD card by formatting it more than once a week)

Specifications of of connecting cables

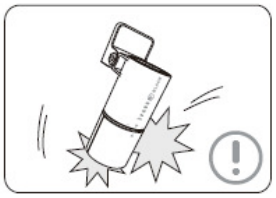
iPASS BLACK

Type	Images	Specificaitons
Power cable		Diameter : 3.5 Diameter: 1.3
GPS cable		1. VCC 2. RX 3. TX (GPS Signal Output) 4. GND
AV cable		1. Video 2. GND
Camera cable		1. VCC 2. D+ 3. D− 4. GND

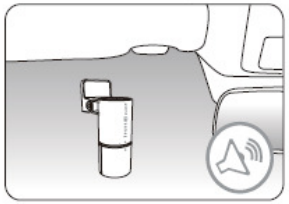
Operation of the product



1. Turn on the power of the vehicle, the POWER LED turns on. 3 low to high tone beep sounds will be heard after 30 seconds when the POWER LED turns on, the product starts recording. The video and audio data are continuously recorded and stored into SD memory card.



2. When impact of collision, lightning acceleration or sudden brake is detected by the built-in impact sensor, the LED indicator of camera blinks three times and the recorded data is stored in SD memory card as event file.

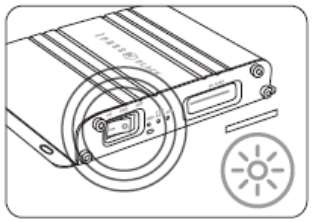


3. When turning off the power, the product processes the last data file for 5~10 seconds and turns off. This will occur if device is wired to a constant 12V/24V supply. The device will give three beeps (high to low toned). Please do not remove the SD memory card before the device has properly shut down.

* Note: In case the Shock-Sensing Sound Alarm is set to ON at User Setting, 2-scale beep tone (beep-beep) will sound with LED indication and save as Event Image. However, in order to prevent malfunction of 3-axis acceleration sensor, if the Event happens within 10 seconds after Alarm tone sounds, Alarm tone won't sound but just LED blinks 3 times and record as Event Image.

Operation of Auto Parking Mode

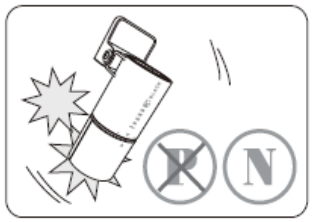
An Auto Parking Mode Switching function is built into this device. In the instance of long-term parking, you can switch or release auto parking mode by using the built-in 3-axis acceleration sensor. When the device is recording in parking mode, the device will only record when sensing shock or motion for higher efficiency of SD Memory Card.



1. In order for the device automatically switch to auto parking mode, the device must be connected to a constant electric power source in the vehicle. After installing, the device should remain on when the vehicle is turned off. If the device turns it self off when the vehicle is off, it is an indication the voltage supplied to the device has dropped.

2. The device automatically switches to auto parking mode if the vehicle doesn't move while idling or has come to a stop for more than 5 minutes subject to the device setting has enabled the auto parking mode option.

3. When entering auto parking mode, the LED indicator of camera is changed to a red color, once auto parking mode is activated recording will resume when motion or shock is detected by the camera's in built g sensor.



4. If the motion by the vehicle is detected, the device will automatically turn off auto parking mode and return back to normal recording mode.

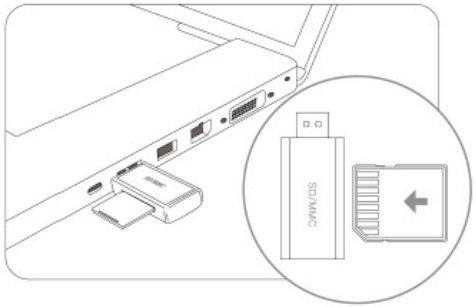
* Note: Recording at Parking Mode is working only when shock or motion is detected, however, it may not be working if shock or motion is weak. Also, please be noted that the recording can be resumed by the surrounding noises (close to factory, street side).

* Table of error beeps

Type of beep	Root cause	Troubleshooting
4 times short beeps (repeatedly)	No SD memory card or SD memory card related error	Insert the SD memory card or Format the SD card and try again
1 time short beeps	Error in the time management of the main unit	Correct the time manually in the settings menu of the PC Player. If the external GPS is connected, try GPS connection again for auto time adjustment.
1 time long beep + 2 times short beeps (repeatedly)	Other errors	Contact your local product supplier

Installation of the PC player

You can play back the recorded video and audio data on a PC via the ITB PC player supplied by the manufacturer. This PC player program is designed to run best in Windows XP, Windows Vista, and Windows 7 (32 bit).



1. Pull out the SD memory card from the main unit and insert it into the memory card reader as shown on the left picture. Then put the memory card reader into the USB port of the PC.

2. If you have not yet inserted your SD card into the recording device. Please proceed to insert the SD card into your PC before doing so.

3. Search the USB disc and double click the installer file stored in the SD memory card.

4. If there is no installation file on your SD card, contact your product supplier for the installation file.

Installation of the PC player

ITB-100HDE PC Player Setup
Welcome to the ITB-100HDE PC Player Setup Wizard
This wizard will guide you through the installation of ITB-100HDE PC Player.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

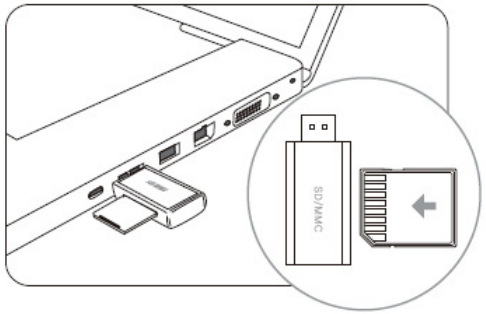
ITB-100HDE PC Player Setup
Welcome to the ITB-100HDE PC Player Setup Wizard
This wizard will guide you through the installation of ITB-100HDE PC Player.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
Next >
Cancel

3. Once you have the PC player installation file located. Open and run the program and click Ok or Yes to allow the installation to start.

4. Follow the prompts and allow the program to install the files onto your computer. Once completed click the finish button.

5. If the shortcut icon appears on desktop screen, the installation has been completed.

How to play the Video



1. Pull out the SD memory card from the main unit and insert it into the memory card reader as shown on the left picture. Then put the memory card reader into the USB port of the PC.

2. Click on the shortcut icon of the PC player.

3. The program will now start and the footage will be viewable on the ITB PC player program..

How to play the Video

All	Front	Rear	Time
N	O	O	2011-06-28 13:26:32
N	O	O	2011-06-28 13:28:32
N	O	O	2011-06-28 13:30:32
N	O	O	2011-06-28 13:32:32
N	O	O	2011-06-28 13:34:32
N	O	O	2011-06-28 13:36:32

All	Front	Rear	Time
N	O	O	2011-06-28 13:26:32
N	O	O	2011-06-28 13:28:32
N	O	O	2011-06-28 13:30:32
N	O	O	2011-06-28 13:32:32
N	O	O	2011-06-28 13:34:32
N	O	O	2011-06-28 13:36:32

4. If no footage is shown straight away. Firstly try to select the appropriate SD memory card and click the OK button. If no footage is shown, please check to make sure data has been recorded onto the SD memory card

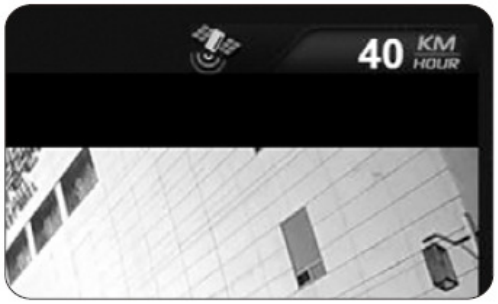
5. All files on the SD memory card will be loaded onto the right window and will playback one by one in the sequential order of recording date and time (oldest comes first).

6. You can select which file you wish to play by clicking on it directly.

① All	Front	Rear	② Time
E	O	O	2011-06-28 15:23:36
E	O	O	2011-06-28 15:25:36
E	O	O	2011-06-28 15:31:35
P	O	O	2011-06-28 16:07:50

* You can sort the Recorded Files by clicking List Menu in the top part of file list.
① Align the Files by 4 types as per recorded status.
(Status: All/Shock/Parking/Normal Mode)
② Align the Files by Ascending or Descending Order based on the Time

How to play the Video



7. The graph shown under the playback screen means the degree of X axis (front and back), Y axis (left and right), and Z axis (up and down) impacts when an event occurs.

8. The driving speed and GPS status displays on the top of the playback screen if the external GPS receiver is connected. The speed can also be hardcoded onto the footage if selected in the settings menu.

9. If the external GPS is connected (optional), the device records the driving coordinates and matches it with Google maps. Please note that the PC must be connected to the internet in order to use the Google PC map service. Please note: Antivirus software or firewalls can prevent the Google maps from displaying, please check these if the Google map feature does not work.

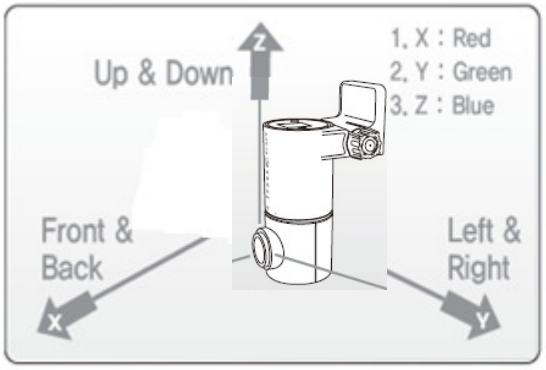
* PC map window can be closed or open pressing the icon.

How to play the video

iPASS BLACK

• You can move, select, play, or delete the recorded files by using your PC Keyboard in the File List Window of the PC Player. Please refer below for more details.
(1) "Shift" Key + File Selection: Select the continuous group of files of the list.
(2) "Ctrl" Key + File Selection: Select the multiple individual files of the list.
(3) "Up" or "Down" Arrow Key: Move in the file list
(4) "Left" or "Right" Arrow Key: Fast Rewind or Forward by 10 seconds interval of the played file.
(5) "Page Up" or "Page Down" Key: Play the file before or after the currently playing file
(6) "Enter" Key: Play the selected file or resume the played file from the very beginning
(7) "Delete" Key: Delete the selected file

• You can play the selected view what you want to see between the simultaneously recorded front and review view video.
Numeric "1" Key: Play the front view only
Numeric "2" Key: Play the both front and rear view
Numeric "3" key: Play the rear view only



※ If the level of impact is so light even in the case of an accident, the impact senor may not recognize it and fails to sort out the data as event file automatically. In this case, press the event button manually.

Function keys in the PC player

Function keys in the PC player

Icons	Description
	• Go to previous or next file
	• Jump to 10 seconds previous or after image
	• Play
	• Pause
	• Video brightness control
	• Night Vision (*)
	• 180 degree rotate for reversed images
	• Image capture
1.0X	• Play speed control
	• Audio volume control

* What is Night Vision ?
In dim illumination circumstance, Night Vision can help to play the video with more vivid quality to see the surroundings clearly by amplifying the light of recorded video as much as possible.

File management in the PC player

File management in the PC player

Button	Function	Description
	Select SD Memory Card	Select SD Memory Card which saves Recorded Image to play or to format
	Read Recorded Files	Read Recorded Images saved in PC
	Delete	Delete the selected Recorded Images
	Copy	Copy the selected Images to separate folder on your computer (folder name: HD-BLACKBOX) *
	Save Event Image	Save all Event-marked Images to separate folder (folder name: HD-BLACKBOX) *
	User Setting	Change the settings of the device. Please refer to the next page for further details.
* HD-BLACKBOX folder will be created on Desktop screen of PC.		

How to change the user setting

Setting Driving Mode

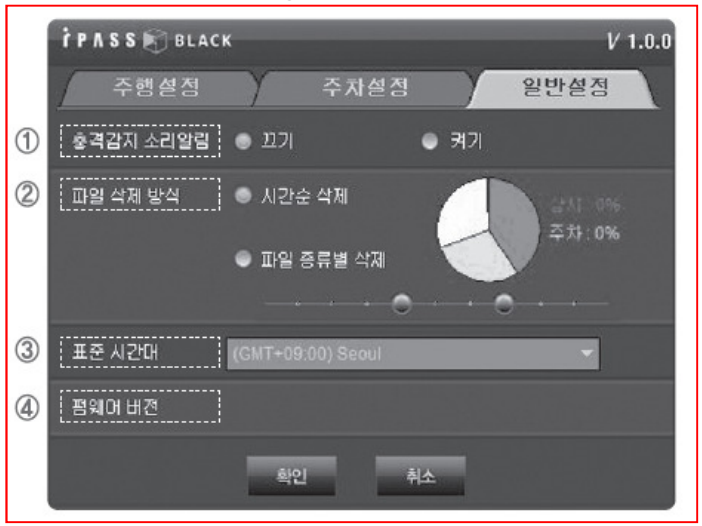
① Version of the PC Player: Displays the version of the PC player.
② Recording Mode: Set the Recording Resolution
③ Front Brightness: Set the brightness of Recording Image of Front camera
④ Rear Brightness : Set the brightness of Recording image of Rear camera.
⑤ Shock-sensitivity while driving: Set the sensitivity of 3-axis acceleration sensor while driving. In case of setting to OFF, Event file (E) will not be recorded while driving and you can not set the ratio of “Event” file (E) at Deletion by File Type menu.
⑥ Speed Display on Image: It will display the speed of vehicle at the time of recording and you can see the speed when playing the image on the other media player other than exclusive PC player. Speed display will be shown at the left upper part of image since after GPS signal is received and, in case GPS signal is not received in underground parking lot etc., it will show as “---”.
⑦ Select the display type of Live video on external monitor.

Setting Parking Mode

① Parking Mode: Set Auto Parking Mode when parking and also set Event recording type when setting Auto Parking Mode. In case of setting to OFF, it will not enter to Parking Mode even while parking and you can not set the ratio of “Parking” file (P) at Deletion by File Type menu.
(Shock: In case the impact on the vehicle, Motion : Motion is sensed by Camera)
② Shock Sensitivity while Parking: Set the sensitivity of 3-axis acceleration sensor while Parking Mode Recording and, although the setting value is same as the one of shock sensitivity while driving, shock sensitivity while parking works much sensitive.
③ Setting Motion Sensitivity; Set the motion sensitivity while Parking Mode Recording.
④ Time setting : You can set or correct the local time of your area manually.

How to change the user settings

General Setting



① Shock-Sensing Sound Alarm : Set the Sound Alarm announcement when recording Event File by impact sensing on the vehicle. However, you can not use this function in case the shock sensing menu while driving is set to OFF at Driving Setting Mode.

② File Deletion Type : Set the file deletion type of recorded images but you can not set this function in case both shock-sensing while driving and parking mode setting are set to “OFF”. Please refer to page 31~32 for detailed way of recording. (You can adjust the ratio with computer mouse by clicking and moving the small circle on the straight line path.)

③ Time Zone : You can set the standard time zone of your area

④ Firmware Version : Displays the firmware version of the product.

Recording Time Available per Setting (Actual recording Time may somewhat vary.)

Mode	HD (1280x720)	D1 (720x480)
Recording Angle (Diagonal)	120 degrees	120 degrees
Numbers of frames per second (fps)	Each 15 fps for Front & Rear	Each 15 fps for Front & Rear
Recording time per file	2 minutes	2 minutes
Recording Time Available (based on 8GB SD Memory Card)	3 hours 30 minutes	5 hours 25 minutes

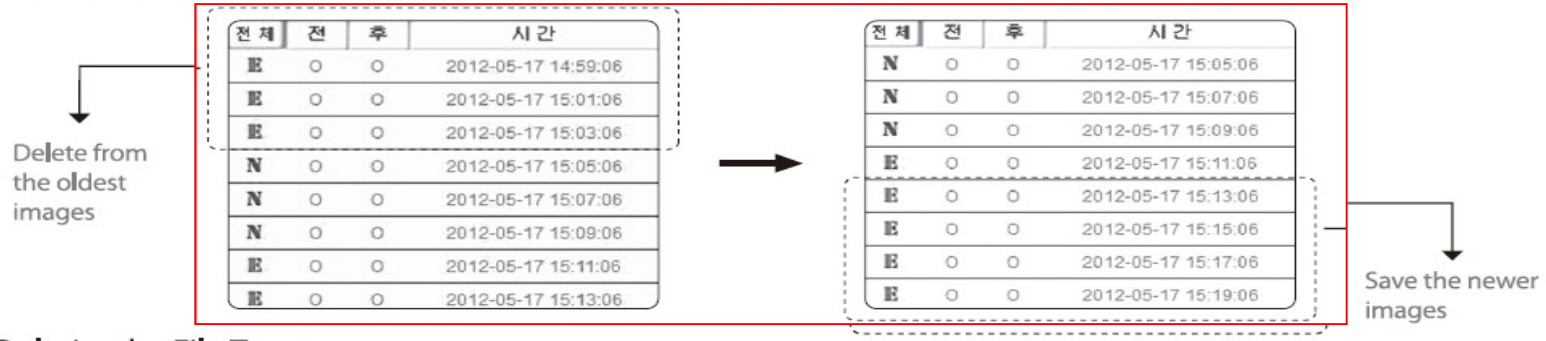
How to manage the recorded files-PC Player

iPASS BLACK

This product saves the image based on always-recording type. However, as per the circumstances at the time of image recording, it classifies by normal recording while driving/event recording while driving/event recording while parking and saves to memory allocation as per user setting values. In case of exceeding the allocated memory capacity, it deletes the images either from the oldest order or deletes all by the lump and then saves the newer images. Please refer to the below for more details.

1. Deletion by Time Order

It is the recording type, no matter what the circumstances at the time of recording (normal recording while driving/event recording while driving or parking mode), to delete the images from the oldest ones and saves new image in case the capacity of recorded images are exceeding the memory card capacity.

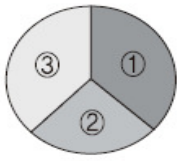


전 체	전	후	시 간
E	O	O	2012-05-17 14:59:06
E	O	O	2012-05-17 15:01:06
E	O	O	2012-05-17 15:03:06
N	O	O	2012-05-17 15:05:06
N	O	O	2012-05-17 15:07:06
N	O	O	2012-05-17 15:09:06
E	O	O	2012-05-17 15:11:06
E	O	O	2012-05-17 15:13:06

전 체	전	후	시 간
N	O	O	2012-05-17 15:05:06
N	O	O	2012-05-17 15:07:06
N	O	O	2012-05-17 15:09:06
E	O	O	2012-05-17 15:11:06
E	O	O	2012-05-17 15:13:06
E	O	O	2012-05-17 15:15:06
E	O	O	2012-05-17 15:17:06
E	O	O	2012-05-17 15:19:06

2. Deletion by File Type

Image files are saved based on time order as Normal Recording (N) and Event Recording File (E, P) and you can set the memory allocation capacity of each file types. In case of exceeding the allocated memory capacity, it deletes the images either from the oldest order or deletes all by the lump and then saves the newer images. However, you can not set the ratio of allocation space in case both shock- sensing while driving and parking mode settings are set to "OFF".

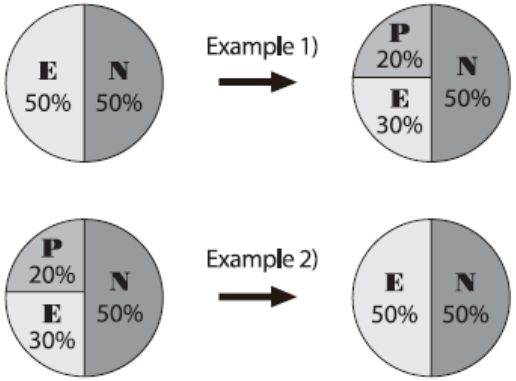


① Always : Setting the saving capacity for normal recording while driving file
② Event : Setting the saving capacity for event recording while driving file
③ Parking : Setting the saving capacity for event recording while parking mode file

How to manage the recorded files-PC Player

iPASS BLACK

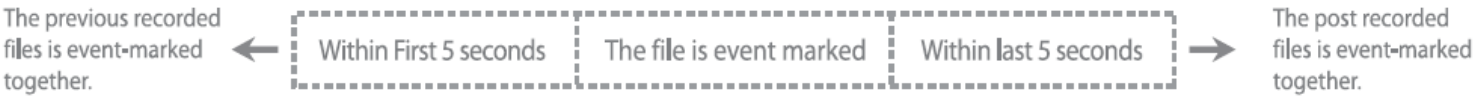
Deletion by File Type classifies and saves the recording files per each circumstances as per the ratio set at User Setting. Accordingly, in case the image saving ratio is changed by changing Shock-sensing while driving or Parking Mode setting from "OFF" to "ON" when the pre-set Recording Image Capacity per each circumstances are full, this product will delete by the lump from the oldest recorded images as per changed setting ratio to secure the memory space and resume the recording. However, in case you change the setting from "ON" to "OFF" in the shock-sensing while driving or parking mode, this product does not delete by the lump but delete sequentially the corresponding recorded file type first and records the newer images.



<Deletion the exceeding portion by the lump>
In case changing parking mode setting to "ON" and adjusting setting ratio, exceeding portion of 20% out of pre-set ratio of event file (50% → 30%) will be deleted by the lump from the oldest to secure the memory space and it will save the parking mode recording file.

<Deletion the exceeding portion sequentially>
In case changing parking mode recording setting to "OFF", it does not delete by the lump but delete sequentially from the oldest parking file (P) to secure the memory space.

In case the event is happened within 5 seconds since the recording starts, the previous recorded file is event marked together in order to show the before-event situation. Also, in case the event is happened in 5 seconds prior to the recording ends, the post recorded file is event-marked in order to show the after-event situation.


The previous recorded files is event-marked together.
Within First 5 seconds
The file is event marked
Within last 5 seconds
The post recorded files is event-marked together.

How to manage the recorded files-PC Player

This product saves the image based on always-recording type except parking mode. However, as per the circumstances at the time of image recording, it classifies by normal recording while driving/event recording while parking and saves to memory allocation as per user setting values. Recorded files are aligned by time order in Exclusive PC Player and the corresponding icons in front of file name help you to identify the file easily.

1. Exclusive PC Player
   The recording files are displayed from oldest at the top to most recent recordings at the bottom on the PC Player File List Window as shown below. The corresponding icons per recording circumstances identifies the files.

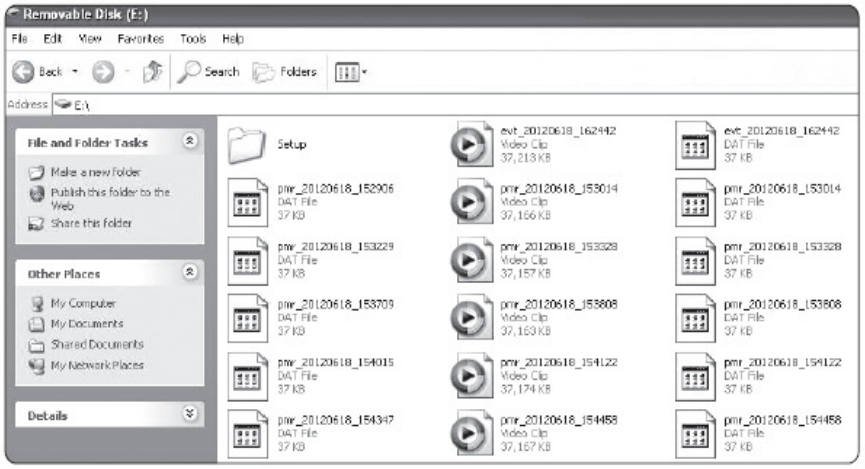
All	Front	Rear	Time
N	O	O	2013-04-26 08:39:44
N	O	O	2013-04-26 08:41:44
N	O	O	2013-04-26 08:43:44
E	O	O	2013-04-26 08:45:44
N	O	O	2013-04-26 08:47:44
N	O	O	2013-04-26 08:49:44
P	O	O	2013-04-26 08:53:50
P	O	O	2013-04-26 09:01:33
P	O	O	2013-04-26 09:05:34
P	O	O	2013-04-26 09:07:33
P	O	O	2013-04-26 09:09:58
P	O	O	2013-04-26 09:20:35
P	O	O	2013-04-26 09:23:36
P	O	O	2013-04-26 09:27:26

*** Recording File Type per Circumstances**
N: Normal Recording Image File while Driving
E: Event Recording Image File while Driving
P: Event Recording Image File by motion while Parking
P: Event Recording image File by impact while Parking

How to manage the recorded files-PC USB Disc

This product saves the image based on always-recording type except parking mode. However, as per the circumstances at the time of image recording, it classifies by normal recording while driving/event recording while driving or while parking and saves to memory allocation as per user setting values. Recorded files are saved as specific file type per recording circumstances as below.

1. PC Removable Disk
   In case you need to see or access the recorded data files on the SD memory card without using the ITB PC Player, you can identify each file type as they are saved with a specific file name depending on the type of recorded data. Please refer to the table below on the right hand side for your reference.

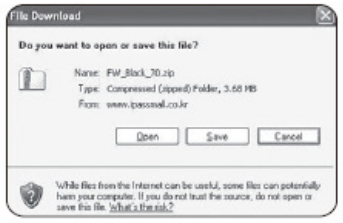


*** Recording File Type per Circumstances**
Normal Recording File(Front) : rec0_date_time.avi
Normal Recording File(Rear) : rec1_date_time.avi
Event File while Driving(Front): evt0_date-time.avi
Event File while Driving(Rear): evt1_date-time.avi
Event File while Parking(Front) : pmr0_date_time.avi
Event File while Parking(Rear) : pmr1_date_time.avi

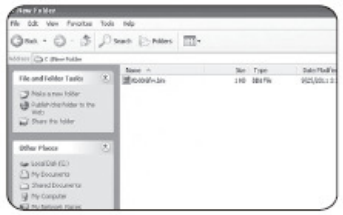
If additional '_' appears on the end of the file name (eg: rec0_20121231_120430_.avi), it means time management error of the the unit. in this case, please correct the time at setting menu on the PC Player.

How to update the product firmware

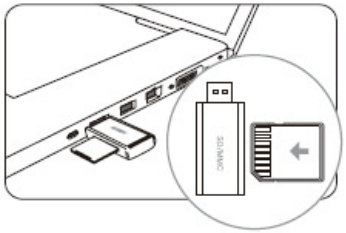
The firmware of the product can be updated easily if any new firmware is released for the purpose of improvement and/or correction of the product firmware.


File Download
Do you want to open or save this file?
Name: FW_Black_70.zip
Type: Compressed (zipped) Folder, 3.68 MB
From: www.ipassmall.co.kr
Open
Save
Cancel
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. What's the risk?

1. Download the new firmware from the web site of your local authorized product supplier.



2. Unzip the file if it ends in .zip - You can find the firmware file named “itb500hdfw.bin” from unzipped folder.

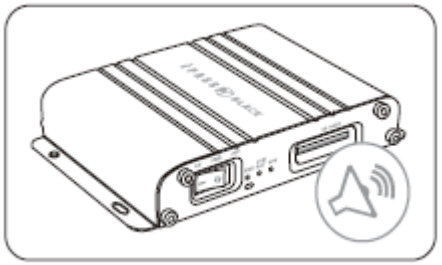


3. Pull out the SD memory card from the main unit and insert it into the memory card reader as shown on the left picture. Then put the memory card reader into the USB port of the PC.

4. The SD memory card will be detected as USB removable disc.

How to update the product firmware

5. Please copy the firmware file into the root directory of SD memory card. *Please format the SD card before copying the new firmware file to the SD card.



6. Pull out the SD memory card from the PC and insert it into the main unit. Turn on the power and then firmware update will start automatically with the starting beep sound. It will takes 10~15 second to complete the firmware update and the continuous beep sounds while update is in progress. When the update is completed, the product will boot again and start to record with three low to high toned beep sounds.

* Please do not remove the SD memory card in the middle of firmware update. It may cause damage to the product.

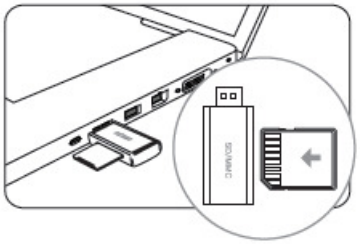
Confirming Firmware Version

1. Please run Exclusive PC Player after connecting SD Memory Card with PC.
2. You can see the firmware version at the pop-up window when starting Exclusive PC Player and at General Setting of User Setting Menu.

How to format the SD memory card- method 1

iPASS BLACK

Generally, a SD memory card has limited lifetime and may be unable to store new data after certain period of time. In order to extend its lifetime, we recommend you to format the SD memory card periodically. The recommendable format cycle is 2 times per week and the method of format is as follows.



1. Connecting to your Personal Computer

Pull out the SD Memory Card from the main unit and insert it into the SD Memory Card Slot of your personal computer (If the SD Memory Card Slot is not exist in your personal computer, insert SD Memory Card into SD Memory Card Reader and connect the Reader to USB terminal of your personal computer) as shown on the left picture.

2. Playing PC Player Software

Run PC Player Software and click the SD memory Card icon in the bottom of software window.

3. Formatting SD Memory Card

Choose SD Memory Card to be formatted and click Format button.

If formatting, all of your data stored in SD Card will be erased, it is highly recommended for you to backup your data before formatting. Recovery (low format) will take more time (approx.10 minutes for 4G Memory card) than Normal Format.
Normal Format
Recover
Cancel

4. Setting SD Memory Card Format Type

Set the SD Memory Card Format Type. Please refer to the next page for more detailed explanation.

How to format the SD memory card- method 1

iPASS BLACK

- Detailed Explanation on Format Type

  - Normal Format : Except optimizing this product, it will format SD Memory Card as like formatting personal computer.

  - Recovery : This is to initialize the whole memory of SD Memory Card (Low Format) and this way of formatting is useful if there is any error that can't be recovered by Normal Format. But, it will take more time (approx. 10 minutes for 4GB Memory Card) than Normal Format.

- Caution

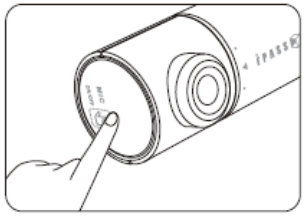
  In case you insert SD Memory Card, which was formatted by Windows Explorer software instead of using format menu of PC Player, into the main unit, this Product will automatically reformat the SD Memory Card to make the Product to be an optimal status. Reformat starts with one time of beep sound and then finishes reformatting and starts video recording with two times of beep sound. In case of reformatting, as all files stored in the SD Memory Card will be removed, please do not store your personal data files in SD memory Card.
  However, if you format using format menu of PC Player software, automatic reformatting will not occur.

- Tips

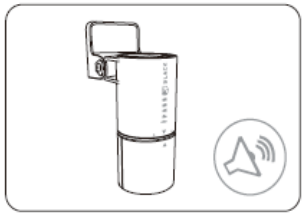
  1. Even though you do format using PC Player software, existing Set-Up menu related files, which you have set before, will remain unchanged.

  2. Even though you do format using format menu of PC Player software, you can use same as before at your personal computer.

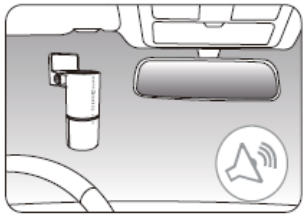
How to format the SD memory card- method 2



1. You can format the SD memory card while the system is operating in your car. Press and hold the mic off/on button for more than 5 seconds, the format will start with a short beeping sound.



2. When formatting, 2 single scale beeps will sound.



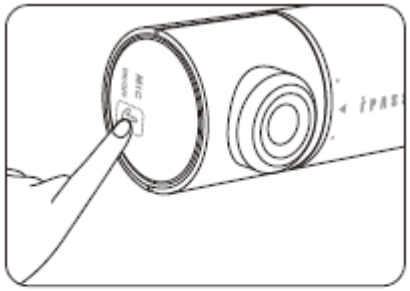
3. If the format is completed, the beep sound will stop and the product will re-boot automatically.

* Once the format is completed, all data in SD memory card will be deleted. So, please make sure that all necessary files to keep have to be backed up in another storage device.

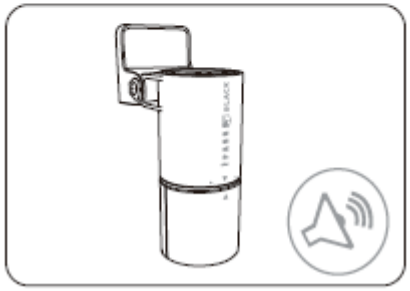
* Even though SD memory card is formatted, all user setting values will remain same as before without change.

Setting Audio Recording On/Off

*As this product has a built-in microphone, in case of privacy invasion when recording voice of people inside the vehicle, you can easily change the setting of audio recording in the vehicle. For more details, please refer to the informaiton below.



1. Press Microphone On/Off button at the bottom of the front camera short.



2. Beep sounds indicates Voice Recording Status.

Beep sounds	Voice Recording Status
2 scales (low -> high)	On
2 scales (high -> low)	Off

Specifications

iPASS BLACK

Items		Description	
Camera	Type of sensor	CMOS – 2Mil pixels	
	Recording Coverage	Diagonal 120 degrees Camera spins up to 360 degrees	
	Minimum Illumination	0.9 Lux	
Recording	Data compression	H.264	
	3 axis impact sensor	Built – in	
	Resolution	1280 x720 (HD)	
	Frame per second	Each 15 fps for Front and Rear	
Others	Power input	12 ~24V	
	Size (mm)	Main unit : 87x 129x24	Camera : 68 x 43
	Weight	Main unit : 172.5g	Camera : 40g
	Operating temperature	-20~ 70℃	

iTRONICS

Real 2CH HD Vehicle Driving Recorder